304

METEOROLOGICAL OFFICE
19 JAN 1970
C

Restricted Circulation

This papor is not an official document. It is for information only and reference cannot be made to it in any printed publication without the permission of the author.

Agricultural Memorandum No. 304

Fine spells over the period of the pea harvest

016138

Introduction

Crop Husbandry wished to know the frequency of occurrence of 3 day fine spells over the Eastern Region. The period of interest was nominated as July 21st to August 14th, the usual dates between which vining peas are harvested.

The data

Daily rainfall observations were examined for stations listed in the Weekly Weather Notes. Some 10-15 years data were available. This may not be a sufficient sample of years to provide a stable frequency distribution, but against this, there was certainly an interest in a comparison between sites, whilst the sample used was a recent one and perhaps more suitable for projection into the future on that account.

The definition of a day suitable for the harvesting of vining peas is somewhat arbitrary. Two independent criteria were adopted.

In the first, only days with rainfall no more than a trace were nominated as DRY. Counts were made of overlapping 3 day DRY spells i.e. 5 consecutive DRY days were regarded as giving rise to 3 overlapping three day DRY spells.

In the second, days with rainfall not more than .05 inches were nominated as FINE. Counts were made of overlapping three day FINE spells.

Cumulative percentage frequency curves of these two types of spell were drawn and expressed as the likelihood of occurrence in ten years. The graphs should be read in the following way.

Over the period July 21st to August 14th, at Cambridge.

- in 2 years in 10 there will be not more than 3 three day DRY spells
- in 5 years in 10 there will be not more than 7 three day DRY spells
- in 8 years in 10 there will be not more than 9 three day DRY spells

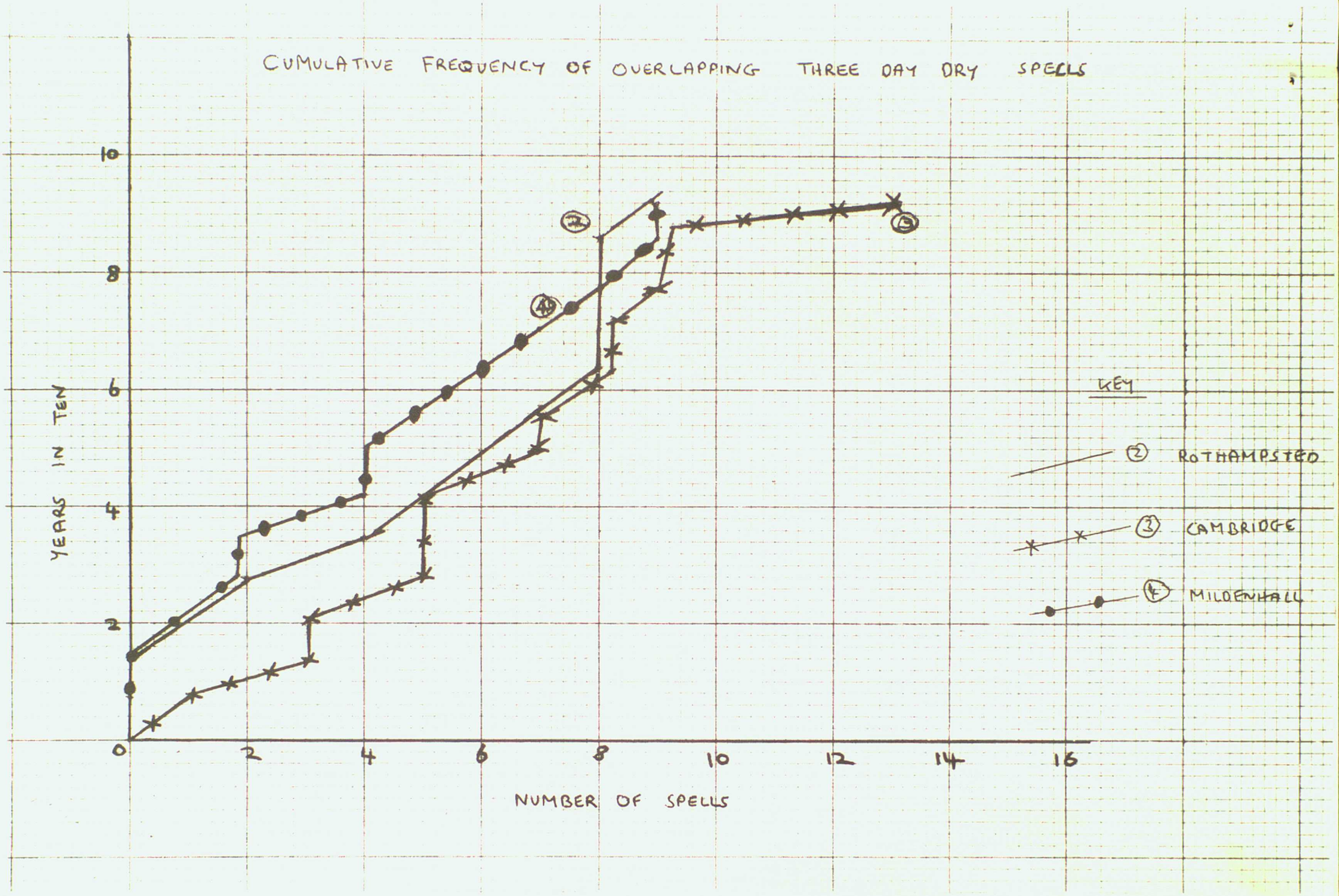
Over the months of July and August, the number of raindays (days with rainfall of .01 inches or more) over the Eastern Region N.A.A.S. ranges from 11 days per month in parts of South East Essex to perhaps 15 or 16 raindays per month in parts of Lincolnshire.

The three day DRY spells confirm this advantage of the south of the N.A.A.S. Region in harvest weather. The relative advantage over the rest of the Region becomes greatly modified if the less restrictive criteria of the FINE spell are adopted.

C. V. Smith
Meteorological Office
Cambridge
December 1969.

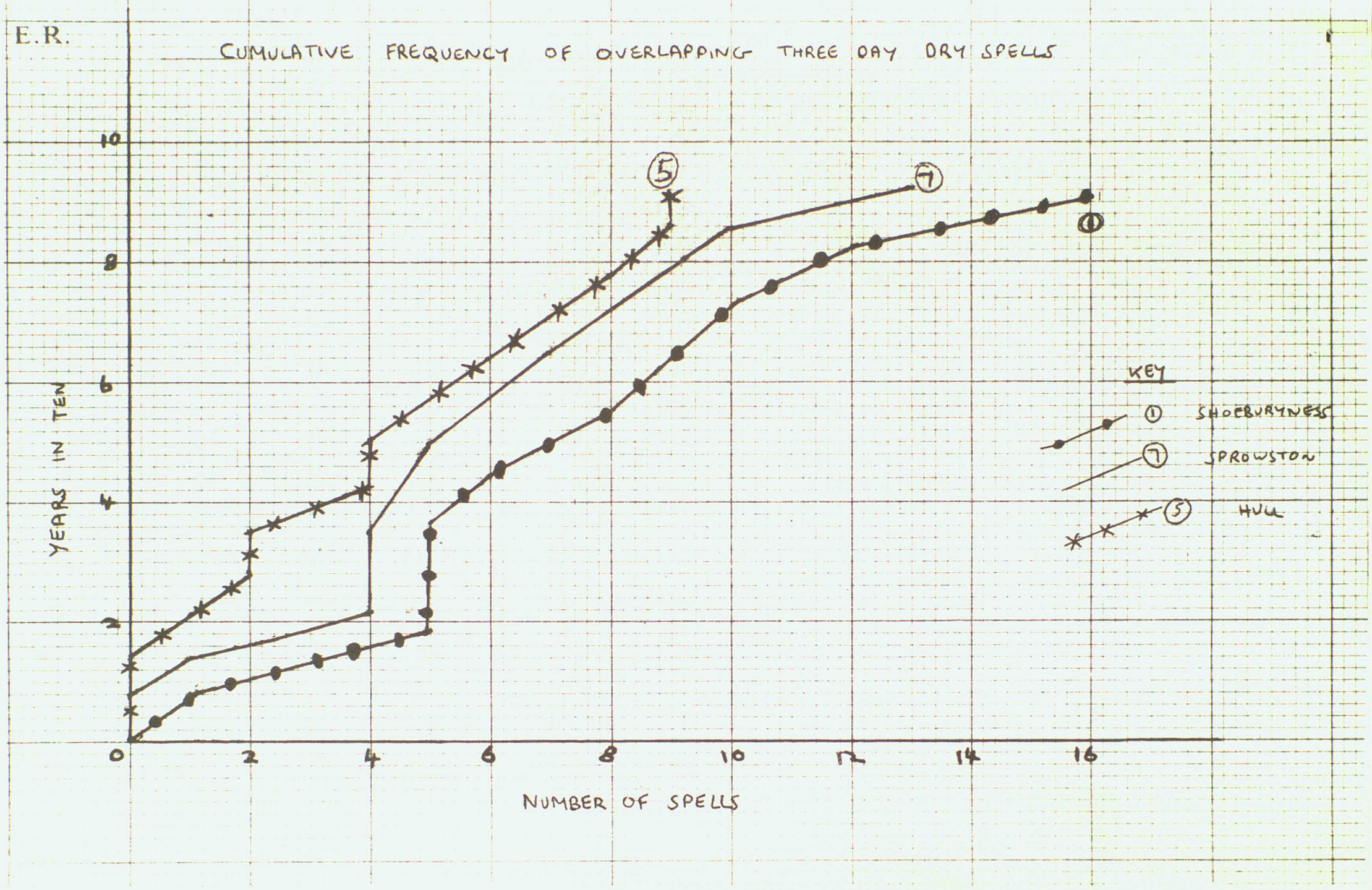
ORGS UKMO A

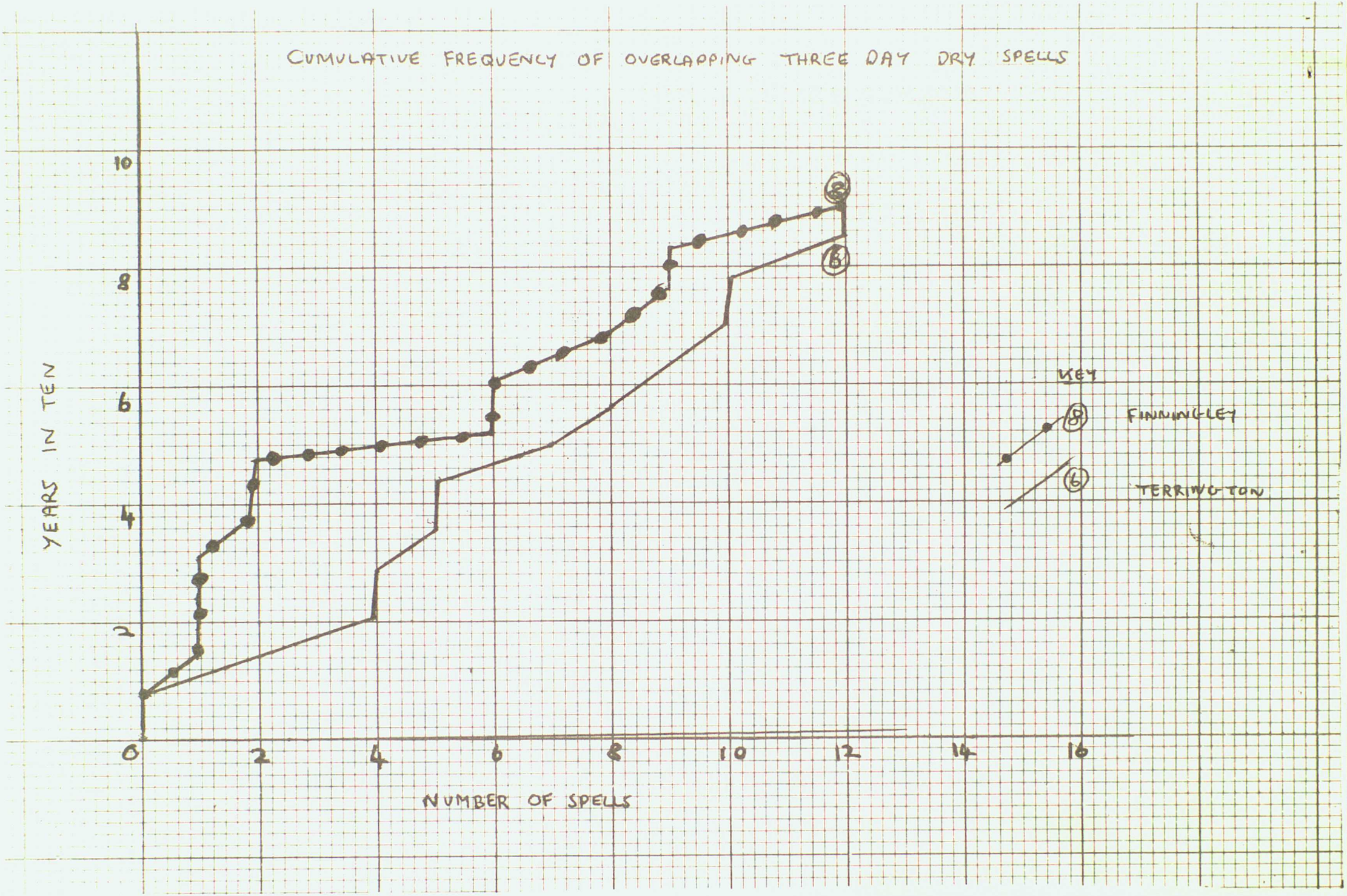
National Meteorological Library
FitzRoy Road, Exeter, Devon. EX1 3PB

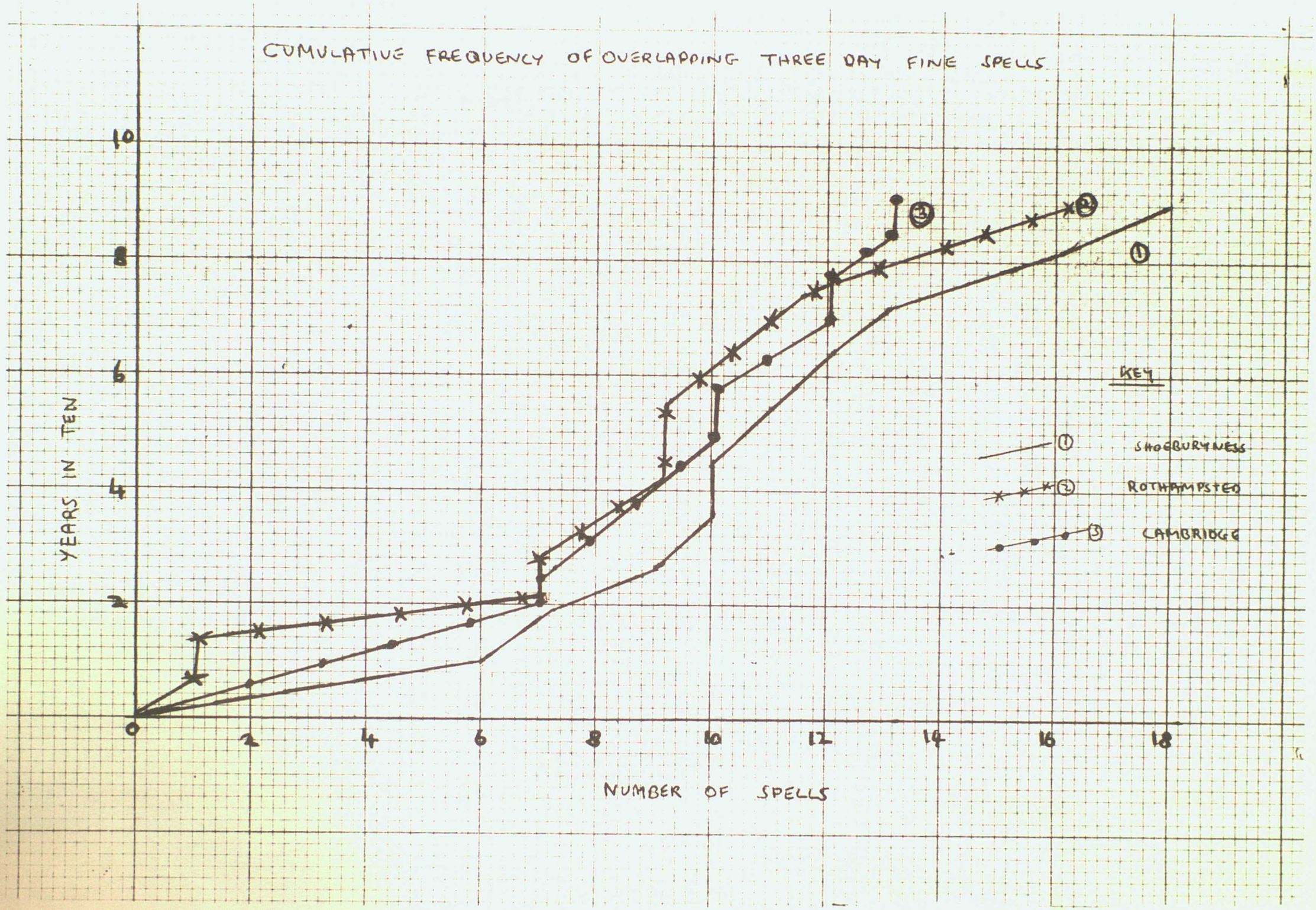

CUMULATIVE FREQUENCY OF OVERLAPPING THREE DAY DRY SPELLS
YEARS IN TEN
0
2
4
6
8
10
12
14
16
NUMBER OF SPELLS
KEY
② ROTHAMPSTED
③ CAMBRIDGE
④ MILDENHALL

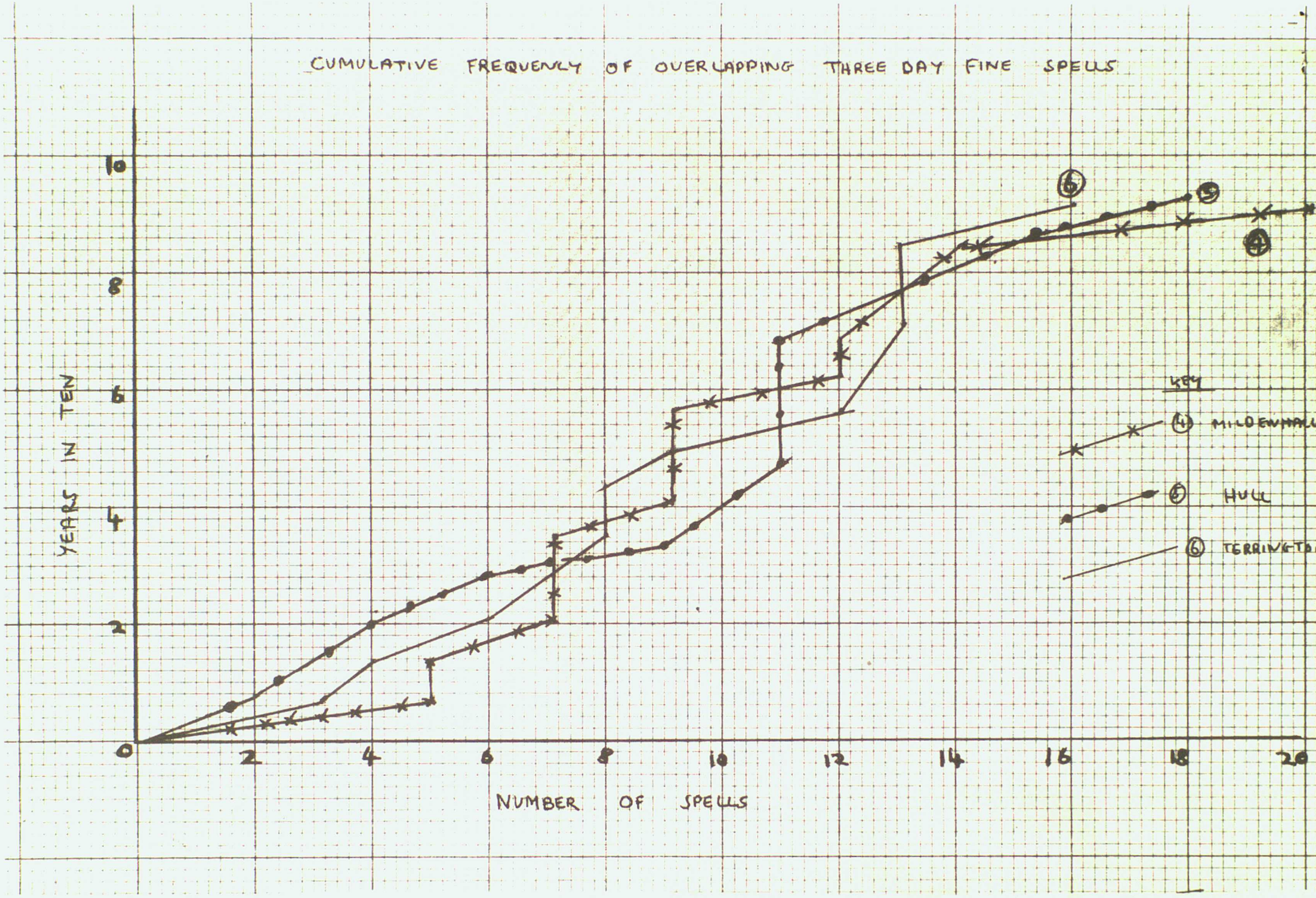
E.R.

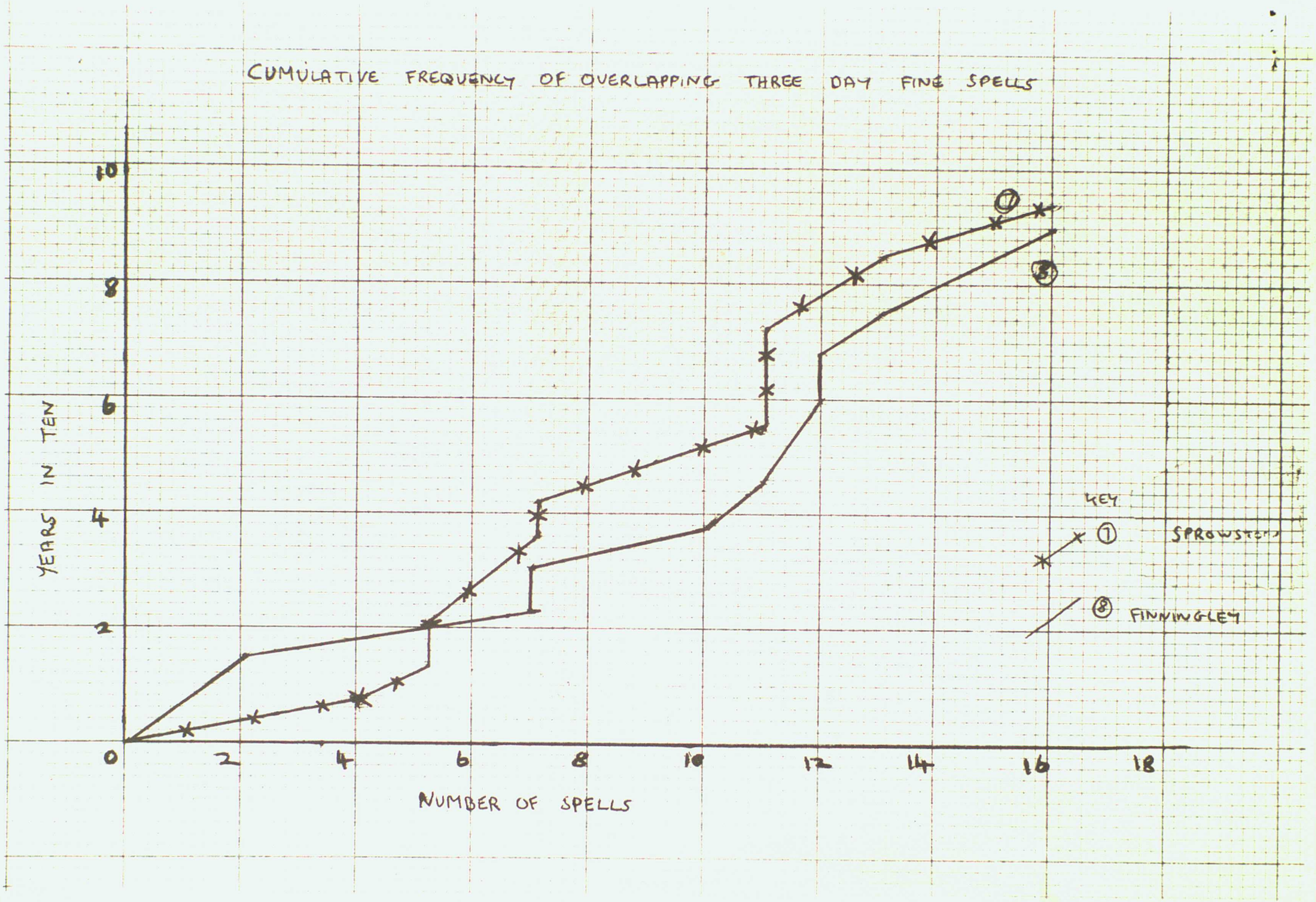
CUMULATIVE FREQUENCY OF OVERLAPPING THREE DAY DRY SPELLS




CUMULATIVE FREQUENCY OF OVERLAPPING THREE DAY DRY SPELLS
YEARS IN TEN
10
8
6
4
2
0
2
4
6
8
10
12
14
16
NUMBER OF SPELLS
KEY
FINNINGLEY
TERRINGTON


CUMULATIVE FREQUENCY OF OVERLAPPING THREE DAY FINE SPELLS
YEARS IN TEN
0
2
4
6
8
10
12
14
16
18
NUMBER OF SPELLS
KEY
① SHOEBURYNESS
② ROTHAMPSTED
③ CAMBRIDGE


CUMULATIVE FREQUENCY OF OVERLAPPING THREE DAY FINE SPELLS
YEARS IN TEN
0
2
4
6
8
10
12
14
16
18
20
NUMBER OF SPELLS
KEY
(4) MILDENHALL
(5) HULL
(6) TERRINGTON


CUMULATIVE FREQUENCY OF OVERLAPPING THREE DAY FINE SPELLS
YEARS IN TEN
0
2
4
6
8
10
12
14
16
18
NUMBER OF SPELLS
KEY
① SPROWSTON
② FINNINGLEY